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■ EDITORIAL

What surgeons need to know about infographics

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Surgeons, healthcare professionals and researchers are increasingly time-pressured, and are inundated with a wealth of information. In the pursuit of evidence-based practice, we must keep up-to-date with an ever-increasing volume of new evidence.^{1,2} Bone & Joint Publishing strives to help surgeons meet this challenge, with resources such as *Bone & Joint 360* making the latest research more accessible to busy clinicians. This edition sees the introduction of BJJ Infographics – an initiative that aims to convey the most important messages in an engaging and time-efficient format.³

The term infographics is an abbreviation for information graphics,⁴ which convey knowledge using data visualisations and images to supplement words. Information gleaned from images is understood faster, and is more likely to be remembered than text.² Modern media presents information in such a way for a reason.⁵ People are better at following best practice if illustrations are included alongside words. The inclusion of graphics within airline safety cards dramatically increased passenger understanding.⁶ Recently, their potential value to health care and healthcare professionals has been better appreciated.

Infographics offer value to surgeons in communicating research, summarising clinical guidelines, and in the education of peers and patients. They are not a substitute for reading a full research paper, but they add value as a ‘visual abstract’, or to illustrate a key concept. They are already a popular tool for disseminating the key messages of articles quickly, with up to 80% of clinicians preferring this format of research summary.⁷ Furthermore, they facilitate long-term retention of the information, which is 6.5 times more likely to be remembered, compared with reading text alone.^{4,7}

Infographics can also increase the reach of your research.⁸ Compared with text-only summaries, infographics are shared eight times more frequently on social media, and articles with accompanying infographics are accessed and downloaded three times more than those

without.⁹ While it is not yet clear whether increased online access to articles will translate to more citations, there is a clear positive impact on alternative metrics or ‘altmetrics’ helping support some of the most popular papers of 2016/2017.

Infographics are also an effective way of communicating guidelines and consensus statements.¹⁰ The National Institute for Health and Care Excellence (NICE) have presented their latest recommendations in the orthopaedics and trauma guidance in a set of interactive infographics.¹¹ Similarly, the World Health Organization global guidelines on the prevention of surgical site infection have been most frequently accessed in their graphic form. Patients can also benefit – sharing information accompanied by illustrations with patients increases their knowledge and reduces anxiety associated with surgery.¹²

To be successful, infographics must be well designed and part of a comprehensive dissemination plan to increase reach and impact.¹³ While readers are able to form an opinion of infographic content rapidly, the process of successful infographic design can be very time-consuming. Infographics should be custom-designed and clinicians should have a hands-on role in this process.⁴ Increasingly user-friendly software packages (including Piktochart and Google charts) are now available so that even the most technophobic orthopod can produce simple graphics. Royalty-free images can be sourced on sites including Pixabay (Hans Braxmeier & Simon Steinberger, Neu-Ulm, Germany). If all else fails, specialist illustrators can be found online.

The key principles for designing an effective infographic include:¹³

- Consideration of the target audience
- A compelling title to grab the reader's attention
- An emphasis on the key messages
- The use of arrows and lines to guide narrative

- A balance between visualisations, images and words
- The sparing use of text
- Limiting the number of colours and font types

The more an infographic is seen and shared, the greater its impact. As healthcare professionals, we are good at writing, but frequently fall short in efforts to ensure the material is presented in an engaging fashion and widely seen and disseminated. Beyond publication, it is worth considering how your infographic can be shared with the target audience. This may be via Twitter, Facebook, Instagram, and other social media.

In addition to now inviting visual summaries of accepted articles, The BJJ may eventually consider stand-alone infographic submissions. Infographics should be accompanied by a summary of up to 300 words and five references. Submissions will be considered by our technical and section editors, and will be rigorously peer reviewed before publication. We will also widely share these via our social media channels once published.

We hope that you will find BJJ infographics useful in summarising concepts, recommendations and evidence. Surgeons who want their work to be increasingly read, shared and remembered should consider infographics.



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